

SPMB Series Single and Duplex Supply Units



B series transfer pumps are designed to provide efficient pumping of #1 to #6 fuel oils, in capacities from 80 to 290 gallons per hour, at pressures up to 500 PSI (except #1 oil). With high-density gray iron body construction, heat-treated alloy steel gears and shafts, and special antifriction bearings. B series transfer pumps offer superior durability and high mechanical efficiency. Double lip Viton seals, are standard. These pumps are also available in pump and motor packages. Available in 115/230 volt single phase or 230/460 volt three phase, simplex, duplex automatic and duplex manual configurations. All B series pumps are UL approved.

Specifications

Gear Sizes:	18B1 (.35" gear width) 37B1 (.70" gear width) 47B1 (1.00" gear width) 59B1 (1.40" gear width)
Capacity:	80 to 290 GPH @ 1750 RPM #1 to #6 fuel oil @ 75 degrees F., 100 PSI)
Pressures:	#4 to #6 fuel oils - up to 500 PSI #2 fuel oil - up to 350 PSI
Operating Speeds:	To 1725 RPM
Porting: *	1/2" NPTF: Side inlet and side outlet 3/4" NPTF: Side inlet and side outlet 59B only
Shaft Seal:	Standard - Double lip type, Viton
Filter:	No internal filter External filter recommended
Relief Valve:	No Relief Valve Use External Relief Valve
Inlet Vacuum:	10" Hg maximum

UL Listed

SPMB Duplex PUMP/MOTOR UNITS

Available in flow rates from 80 GPH through 290 GPH. Systems can be designed for single phase 115/208/ 230V, 60 or 50CY, or three phase 208/230/460V, 60 or 50CY, applications, The SPM duplex models consist of two pump and motor assemblies with a pre-piped common discharge manifold. One pump operates continuously, with the second providing backup service if the main pump fails. Either automatic (SPM-DA models) or manual (SPM-DM models) controls are available. The duplex automatic series are designed specifically for buildings where a constant supply of oil must be assured...hopsital, apartment buildings, schools and other commerical or industrial buildings. The duplex pump set has a second pump for standby or auxiliary service. Furnished with automatic or manual standby controls, the duplex automatic is equipped with a pressure sensing device which detects loss of pressure of primary pump. If standby pump is brought into service, and alarm sounds which indicates malfunction in primary pump. The electric control circuit on the duplex automatic pump set is equipped with a lead-lag switch to permit manual alternation of pump to provide even pump wear. The manually operated duplex pump sets offer the same protection as the automatic except the standby pump must be turned on manually which requires that maintenance personnel always be available. Available with either SPM or SPMV pump/motor units.

SPMB Ordering Code

SPMB

50

A

T

18BR

DM

1

2

3

4

5

MOTOR HORSEPOWER (1725 RPM STANDARD)

1	<i>No.</i>	<i>Description</i>
	* 25	.25 HP
	* 33	.33 HP
	50	.50 HP
	75	.75 HP
	100	1.0 HP
	150	1.5 HP
	200	2.0 HP
	300	3.0 HP

* = only available in 115V or 230V single phase

MOTOR PHASE

2	<i>Code</i>	<i>Description</i>
	A	Single Phase / 60 cycle / 115/208/230 VAC
	B	Three Phase / 60 cycle / 208 / 230 / 460 VAC
	X	Consult factory for other types

MOTOR ENCLOSURE

3	<i>Code</i>	<i>Description</i>
	T	TEFC Std/ thru 2 HP
	O	OPDP Std. over 2 HP
	P	Explosion Proof

When sizing SPMB units, remember that the pressures indicated are at the pump outlet.

All pumps relying on atmospheric pressure to push the fuel oil into them are subject to cavitation. As fuel viscosity (thickness) increases, the tendency for cavitation becomes greater. Therefore, it is best to mount the pump at the base of the tank and to use the largest diameter, shortest length, and straightest inlet possible.

MOTOR HORSEPOWER (1725 RPM STANDARD)

4 Pump Model	Maximum gph Nominal	Under pressure, read horsepower required at 1750 RPM			
		25 psi	100 psi	200 psi	300 psi
18BR	82	.25	.25	.25	.33
37BR	159	.25	.25	.50	.75
47BR	220	.25	.50	.75	1.00
59BR	292	.25	.50	.75	1.50

SPMB Duplex Ordering Code

When ordering SPMB Duplex models add suffix:

“DM,” for manual control models, or “DA,” for automatic control models.

Example: SPMB-50AT/18BR-DA

5 Code	Duplex Units
DM	Duplex with manual controls
DA	Duplex with automatic controls

A large diameter inlet pipe or hose necked-down at the pump is preferable to a longer length of similar diameter pipe because the fuel tends to adhere to the inside of the pipe.

When initially starting a unit, it is desirable and sometimes necessary to have a vent valve or plug on the pressure side of the pump to facilitate its priming.

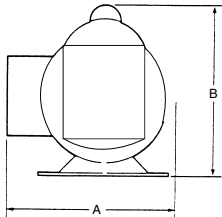
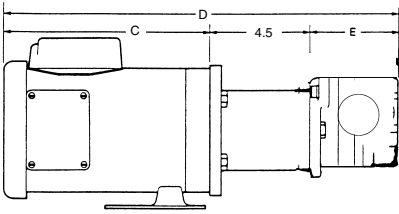
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DIMENSIONS

<i>Motor</i>					
<i>HP</i>	<i>NEMA</i>		<i>A</i>	<i>B</i>	<i>C</i>
	<i>Fame</i>	<i>Type</i>			
	<i>Size</i>	<i>(Standard)</i>			
.50	56C	TEFC	9.00	8.25	9.20
.75	56C	TEFC	9.00	8.25	9.20
1.00	56C	TEFC	9.00	8.25	10.20
1.50	56C	TEFC	9.00	8.25	11.20
2.00	56C	TEFC	9.00	8.25	11.20
3.00	182TC	OPDP	9.63	11.05	11.00
5.00	184TC	OPDP	9.63	11.05	12.40
7.50	213TC	OPDP	11.63	13.00	13.90

<i>Pump</i>		
<i>Model</i>	<i>E</i>	<i>D</i>
18BR	3.36	(.50HP) 17.06
37BR	3.71	(.75HP) 17.41
47BR	4.05	(.75HP) 17.75
59BR	4.40	(.75HP) 18.10

**SPMB
SINGLE SUPPLY UNIT**



**SPMB
DUPLEX AUTOMATIC SUPPLY UNIT**

(Dimensions are for 3 Phase Duplex Automatic
Consult Factory for Single Phase Dimensions)

